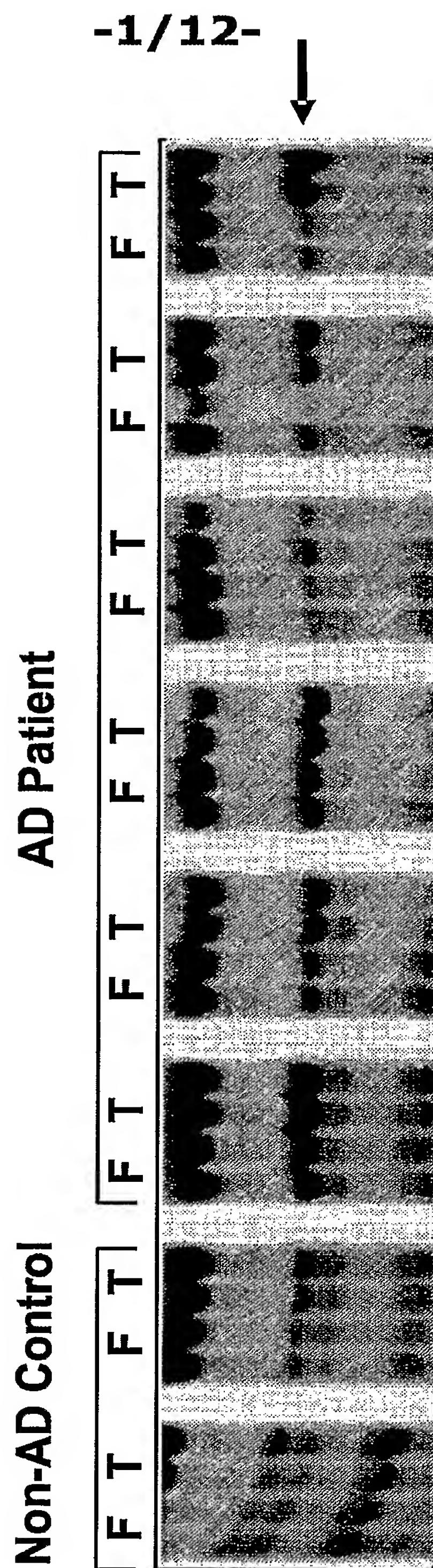
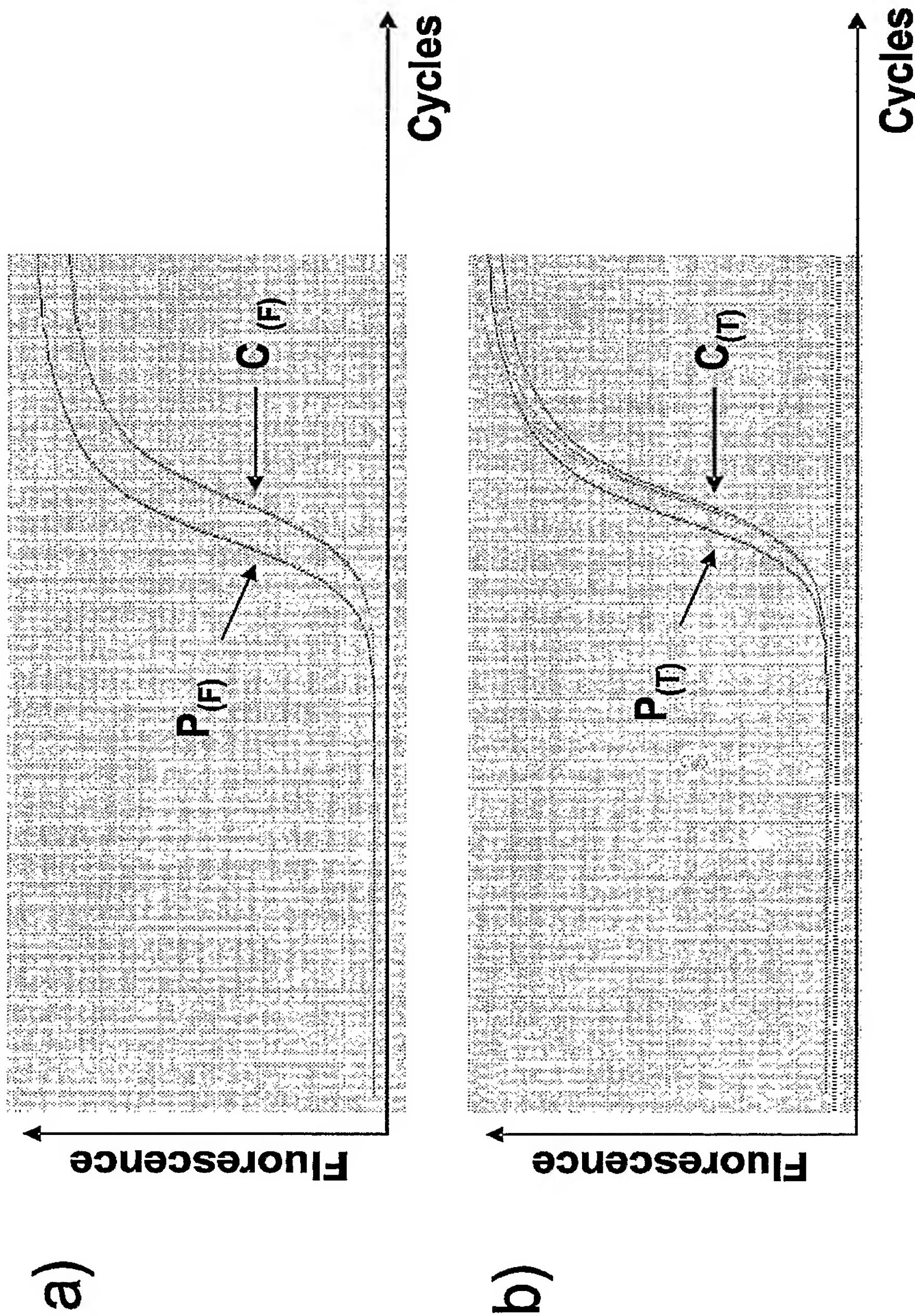


**Fig. 1: Identification of differentially expressed genes in a fluorescence differential display screen**



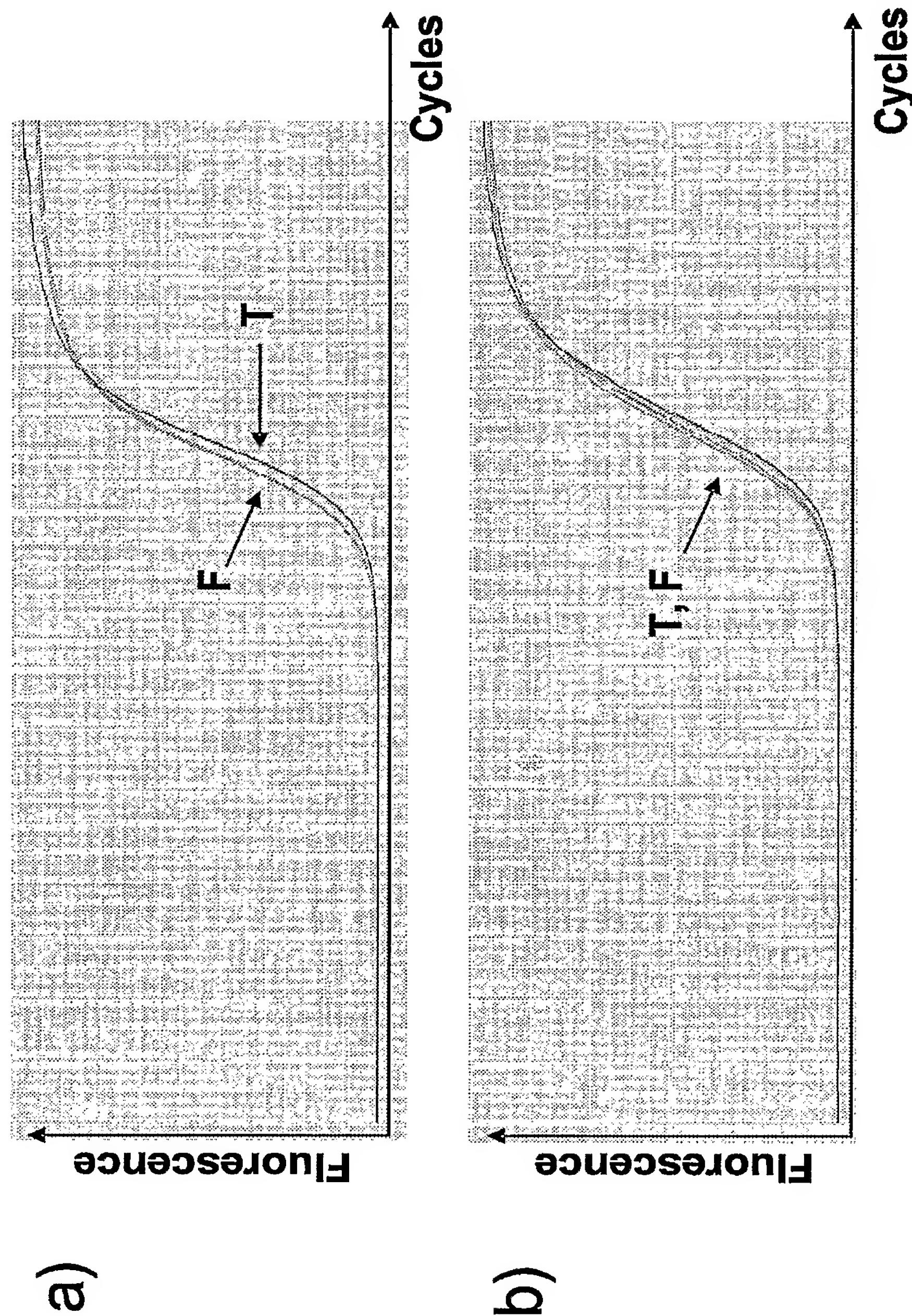
-2/12-

**Fig. 2: Verification of differential expression of KCNE4 by quantitative PCR**



-3/12-

**Fig. 3: Verification of differential expression of KCNE4 by quantitative PCR**



**-4/12-**

**Fig. 4 : SEQ ID NO. 1:**  
**amino acid sequence of**  
**human KCNE4 protein**

**Length: 170 aa**

```
1  MLKMEPLNST HPGTAASSSP LESRAAGGGS GNGNEYFYIL VVMSFYGIFL
 51  IGIMLGYMKS KRREKKSSLL LLYKDEERLW GEAMKPLPVV SGLRSVQVPL
101  MLNMLQESVA PALSCTLCSM EGDSVSSESS SPDVHLTIQE EGADEELEET
151  SETPLNESSE GSSENIHQNS
```

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**Fig. 5: SEQ ID NO. 2:**  
**nucleotide sequence of**  
**human KCNE4 cDNA**

**Length: 1204 bp**

1	AGCAGAAGAA	CCCTCTTGG	CTGGACGATT	TGGGAATTCA	AAACTTGGGA
51	CAAACGTCA	GCCTTGCCCC	TGCTGTGGAG	GCAGCCTCAA	TGCTGAAAAT
101	GGAGCCTCTG	AACAGCACGC	ACCCCGGCAC	CGCCGCCTCC	AGCAGCCCCC
151	TGGAGTCCCG	TGCGGCCGGT	GGCGGCAGCG	GCAATGGCAA	CGAGTACTTC
201	TACATTCTGG	TTGTCATGTC	CTTCTACGGC	ATTTTCTTGA	TCGGAATCAT
251	GCTGGGCTAC	ATGAAATCCA	AGAGGGGGGA	GAAGAAAGTCC	AGCCTCCTGC
301	TGCTGTACAA	AGACGAGGAG	CGGCTCTGGG	GGGAGGCCAT	GAAGCCGCTG
351	CCCGTGGTGT	CGGGCCTGAG	GTCGGTGCAG	GTGCCCCCTGA	TGCTGAACAT
401	GCTGCAGGAG	AGCGTGGCGC	CCGCGCTGTC	CTGCACCCCTC	TGTTCCATGG
451	AAGGGGACAG	CGTGAGCTCC	GAGTCCTCCT	CCCCGGACGT	GCACCTCACC
501	ATTCAGGAGG	AGGGGGCAGA	CGAGGAGCTG	GAGGAGACCT	CGGAGACGCC
551	CCTCAACGAG	AGCAGCGAAG	GGTCCTCGGA	GAACATCCAT	CAGAATTCCCT
601	AGCACCCCCG	GGACCCCTGC	GGGTGGCTCC	ATCAGCCAGC	AACCTTAGAG
651	AGAGGAAAGA	CAGTTTCAA	GTGTCTGGTT	TCACTTTCAC	AGTGCGGCTG
701	CCACTTTGAA	GAGACCCTTG	GTAAACCCCT	GATTGGGGT	GGGGTGGGGG
751	ACTAGGCTCA	GCCGGAACCA	GCACCTCCAA	GGAGTCCGGG	AGGTGCCTGT
801	GGTTTGCACC	CACCACTGAA	AAAGCCGCGG	AGATGCGCAG	CGCGTACACT
851	GACTTTGGGG	CCTGGGTGTT	GGGGTTCTGA	TCAGAATTG	CGGGGATGAT
901	ATGCTTGCCA	TTTTCTCACT	GGATGCCCTG	GGTAGCTCCT	GCAGGGTCTG
951	CCTGTTCCA	GGGCTGCCGA	ATGCTTAGGA	CACGCTGAGA	GACTAGTTGT
1001	GATTGCTAT	TTTGCCTAGA	GCTTTGTCCT	TCTAGATCTG	ATTGGCTGTA
1051	AGTATCTCTA	CTGTGTACCT	GTGGCATTCC	TTCACAGTGG	GTTACAAGCT
1101	TCTTTGGAT	TAGAGGGGGA	TTTTGATGG	GAGAAAGCTG	GAGATCTGAA
1151	CCCAGCCCAT	TTGCACACTA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA
1201	AAAA				

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**Fig. 6: SEQ ID NO. 3**

**Length: 193 bp**

```
1  TAGTGTGCAA ATGGGCTGGG TTCAGATCTC CAGCTTCCTC CCATCAAAAAA
 51 TCCCCCTCTA ATCCAAAAGA AGCTTGTAAC CCACTGTGAA GGAATGCCAC
101 AGGTACACAG TAGAGATACT TACAGCCAAT CAGATCTAGA AGGACAAAGC
151 TCTAGGCAAATC ACAACTAGTC TCTCAGCGTC ACC
```

**-7/12-**

**Fig. 7: SEQ ID NO. 4:**  
**nucleotide sequence of**  
**human KCNE4 coding sequence**

**Length: 513 bp**

```
1 ATGCTGAAAA TGGAGCCTCT GAACAGCACG CACCCGGCA CCGCCGCCTC
 51 CAGCAGCCCC CTGGAGTCCC GTGCGGCCGG TGGCGGCAGC GGCAATGGCA
101 ACGAGTACTT CTACATTCTG GTTGTATGT CCTTCTACGG CATTTCCTTG
151 ATCGGAATCA TGCTGGGCTA CATGAAATCC AAGAGGCGGG AGAAGAAGTC
201 CAGCCTCCTG CTGCTGTACA AAGACGAGGA GCGGCTCTGG GGGGAGGCCA
251 TGAAGCCGCT GCCCGTGGTG TCAGGGCCTGA GGTGGGTGCA GGTGCCCCCTG
301 ATGCTGAACA TGCTGCAGGA GAGCGTGGCG CCCGCGCTGT CCTGCACCCCT
351 CTGTTCCATG GAAGGGGACA GCGTGAGCTC CGAGTCCTCC TCCCCGGACG
401 TGCACCTCAC CATTCAAGGAG GAGGGGGCAG ACGAGGAGCT GGAGGAGACC
451 TCGGAGACGC CCCTAACGA GAGCAGCGAA GGGTCCTCGG AGAACATCCA
501 TCAGAATTCC TAG
```

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**Fig. 8: Alignment of SEQ ID NO. 2  
with SEQ ID NO. 3**

**Length: 193 bp**

193	GGTGACGCTGAGAGACTAGTTGTGATTTGCTATTTGCCTAGAGCTTTGT	144
978	GGACACGCTGAGAGACTAGTTGTGATTTGCTATTTGCCTAGAGCTTTGT	1027
143	CCTTCTAGATCTGATTGGCTGTAAGTATCTCTACTGTGTACCTGTGGCAT	94
1028	CCTTCTAGATCTGATTGGCTGTAAGTATCTCTACTGTGTACCTGTGGCAT	1077
93	TCCTTCACAGTGGGTTACAAGCTCTTTGGATTAGAGGGGGATTTTGA	44
1078	TCCTTCACAGTGGGTTACAAGCTCTTTGGATTAGAGGGGGATTTTGA	1127
43	TGGGAGAAAGCTGGAGATCTGAACCCAGCCCATTGCACACTA	1
1128	TGGGAGAAAGCTGGAGATCTGAACCCAGCCCATTGCACACTA	1170

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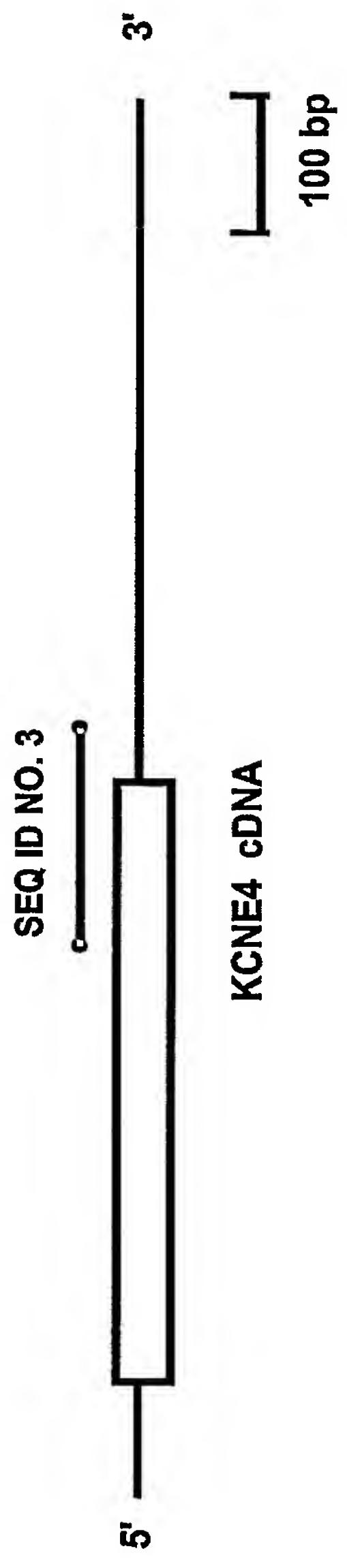
**Fig. 9 : Alignment of KCNE4 RT-PCR  
primers with human KCNE4 cDNA,  
SEQ ID NO. 2**

1 GGTTGCACCCACCACTGA 19  
|||||||||||||||||||  
801 GGTTGCACCCACCACTGA 819

19 TCAGAATTGGCGGGATGA 1  
|||||||||||||||||||  
881 TCAGAATTGGCGGGATGA 899

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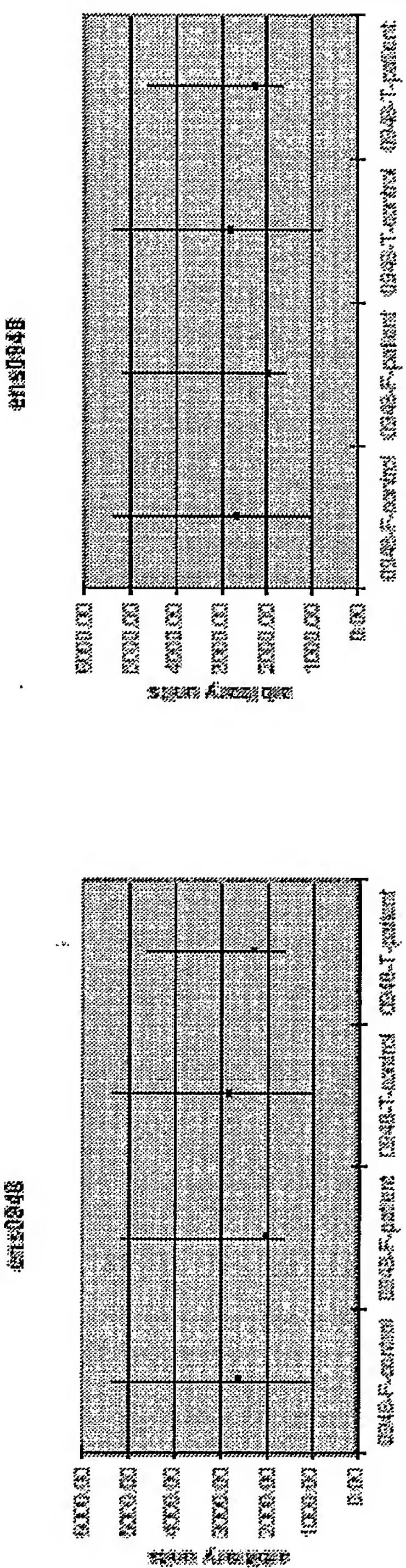
**Fig. 10 : Schematic alignment of SEQ ID NO. 3 with human KCNE4 cDNA, SEQ ID NO. 2**



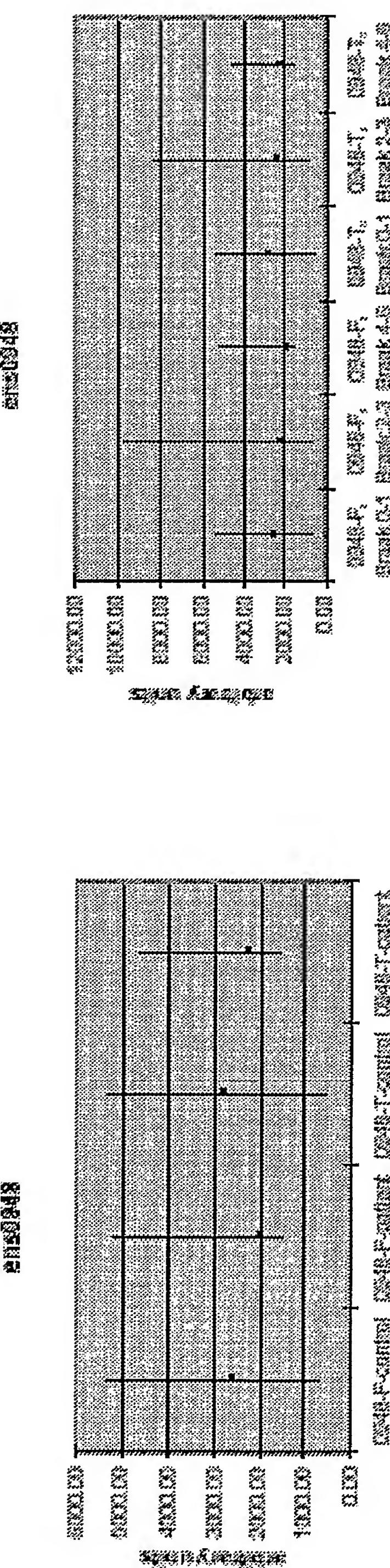
**-11/12-**

**Fig. 11 : Analysis of absolute mRNA expression of KCNE4**

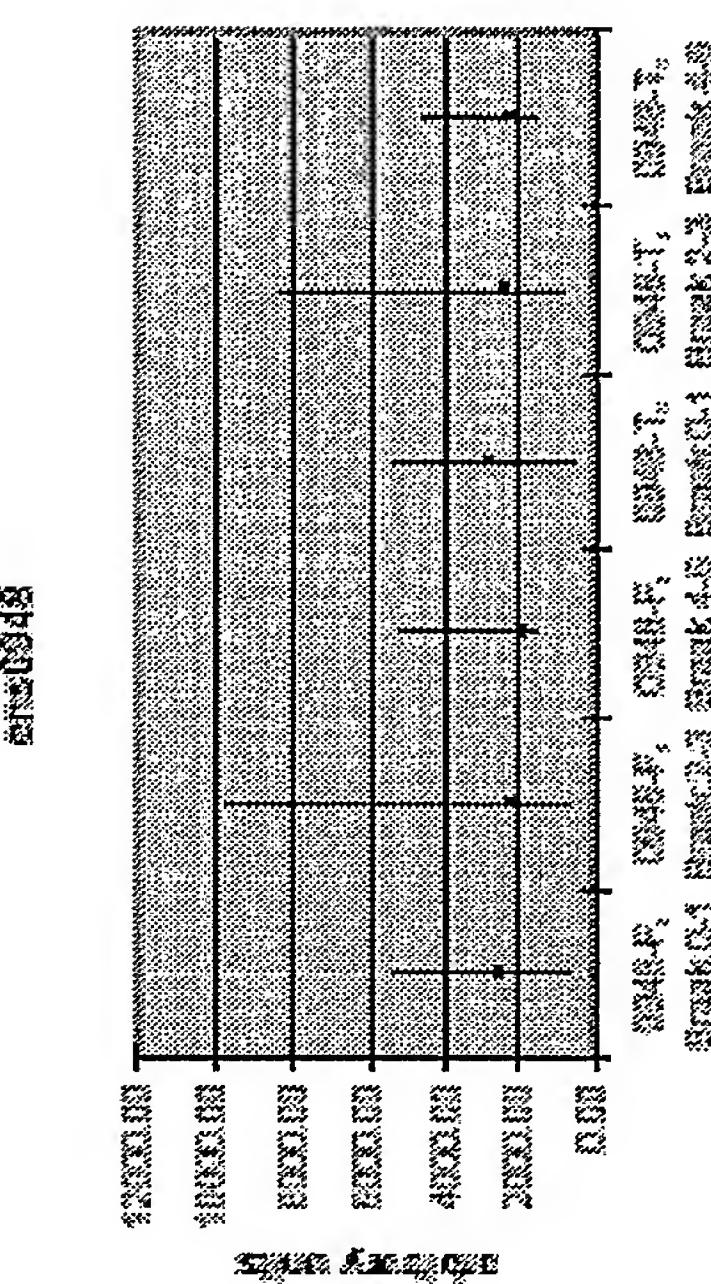
**Comparison of Break 0-2 with Break 3-6**



**Comparison of Break 0-1 with 2-3**



**Comparison of Break 0-1 with 2-3 and 4-5**



**-12/12-**